

WHAT IS CLAIMED IS:

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Substantially the same as originally filed

1. An image forming apparatus comprising:
a processing unit processing image data;
an interface unit between a graphics port and
a peripheral device interconnection port;
10 a print engine connected to the peripheral
device interconnection port; and
a first memory provided on a side of the
processing unit with respect to the graphics port,
wherein the processing unit stores the image
data in the first memory, and transfers the image data
stored in the first memory to the print engine directly
through the graphics port, the interface unit and the
peripheral device interconnection port.

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2. The image forming apparatus as claimed in
claim 1, further comprising a second memory connected to
25 the interface unit so that the second memory is

connected to the first memory via the graphics port,
wherein the processing unit transfers the image data
from the first memory to the second memory through the
graphics port so as to transfer the image data from the
5 second memory to the print engine through the peripheral
device interconnection port.

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3. The image forming apparatus as claimed in
claim 2, further comprising a compressor connected
between the graphics port and the second memory and a
decompressor connected to said second memory, wherein
15 the compressor compresses the image data transferred
from the first memory to the second memory so as to
store the compressed image data in the second memory,
and the decompressor decompresses the compressed image
data and stores the decompressed image data in the
second memory so as to transfer the decompressed image
20 data from the second memory to the print engine through
the peripheral device interconnection port.

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4. The image forming apparatus as claimed in
claim 1, further comprising a decompressor connected
between the graphics port and the peripheral device
interconnection port, wherein the processing unit
compresses the image data by using a software and stores
the compressed image data in the first memory, and the
decompressor decompresses the compressed image data
transferred from the first memory to the print engine.

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5. The image forming apparatus as claimed in
claim 2, further comprising a decompressor connected
15 between the second memory and the peripheral device
interconnection port, wherein the processing unit
compresses the image data by using a software and stores
the compressed image data in the first memory, and the
decompressor decompresses the compressed image data
20 stored in the second memory and sends the decompressed
image data to the print engine through the peripheral
device interconnection port.

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6. The image forming apparatus as claimed in
claim 1, further comprising a decompressor connected the
second memory, wherein the processing unit compresses
the image data by using a software and stores the
5 compressed image data in the first memory, and the
decompressor decompresses the compressed image data
stored in the second memory and stores the decompressed
image data in the second memory so that the decompressed
image data is transferred from the second memory to the
print engine though the peripheral device
interconnection port.

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7 A method of transferring image data to a
print engine through a peripheral device interconnection
port, the method comprising the steps of:

storing the image data in a first memory;
20 transferring the image data from the first
memory to an interface unit through a graphics port; and
transferring the image data from the interface
unit to the print engine through the peripheral device
interconnection port.

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8. The method as claimed in claim 7, further comprising the steps of:

transferring the image data from the first memory to a second memory through the graphics port; and transferring the image data from the second memory to the print engine through the peripheral device interconnection port.

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9. The method as claimed in claim 8, further comprising the steps of:

15 compressing the image data transferred from
the first memory to the second memory;
storing the compressed image data in the
second memory;

decompressing the compressed image data stored
in the second memory;

20 storing the decompressed image data in the
second memory; and

transferring the decompressed image data from the second memory to the print engine through the peripheral device interconnection port.

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10. The method as claimed in claim 7, further comprising the steps of:

compressing the image data and storing the compressed image data in the first memory;

5 decompressing the compressed image data transferred from the first memory after passing through the graphics port; and

transferring the decompressed image data to the print engine through the peripheral device interconnection port.

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11. The method as claimed in claim 8, further 15 comprising the steps of:

compressing the image data and storing the compressed image data in the first memory;

transferring the compressed image data from the first memory to the second memory through the 20 graphics port;

decompressing the compressed image data stored in the second memory; and

transferring the decompressed image to the print engine through the peripheral device 25 interconnection port.

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12. The method as claimed in claim 8, further comprising the steps of:

compressing the image data and storing the compressed image data in the first memory;

5 transferring the compressed image data from the first memory to the second memory through the graphics port;

decompressing the compressed image data stored in the second memory;

10 storing the decompressed image data in the second memory; and

transferring the decompressed image data from the second memory to the print engine through the peripheral device interconnection port.

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